

APPENDIX A

HISTORY OF THE NOISE COMPATIBILITY PROCESS AT KEY WEST INTERNATIONAL AIRPORT

A.1 INTRODUCTION

At the request of the Monroe County Ad Hoc Committee on Noise, the following history of the noise compatibility planning process at EYW was prepared and included herein. Questions regarding this history are frequently asked during the Ad Hoc Committee meetings, and it was felt that providing an easily accessible, complete history would be beneficial to the public.

On October 26, 1998, the Monroe County Board of County Commissioners (as the Airport Sponsor) submitted to the FAA the descriptions of the Sponsor's proposed noise compatibility measures and other documentation produced during the Noise Exposure Maps and Noise Compatibility Program study conducted from April 1997 through October 1998. This is the original NEM and NCP and consists of the Sponsor's recommendations to implement eight (8) program measures. The 1998 Existing Condition and 2003 Future Condition NEMs were found to be in compliance with applicable requirements by the FAA on November 9, 1998. Subsequently, the FAA completed its review of the NCP and determined that the procedural and substantive requirements of the Aviation Safety and Noise Abatement Act and 14 CFR Part 150 had been satisfied. The overall program, therefore, was approved by the FAA effective May 7, 1999. The FAA approved six (6) of the eight (8) proposed action measures in the NCP in full. Two (2) measures were disapproved. The approved and disapproved measures are described in [Appendix A, Sections A.4 and A.5](#).

Annual noise contour updates were prepared for the years 1999 through 2005. The 2005 Noise Contour Update was completed in 2007. The DNL 65 dB contour included the area formerly designated Phase 6 of the Noise Insulation Program (NIP), as well as a few additional homes along Riviera Drive that were not previously included in Phase 6. The FAA agreed to include the recommended homes in Phase 6 but required that the Noise Exposure Maps be officially updated. On June 9, 2008, the Monroe County Board of County Commissioners submitted the Noise Exposure Maps and Supporting Documentation to the FAA. The 2008 Existing Condition and 2013 Future Condition NEMs were found to be in compliance with applicable requirements by the FAA on August 27, 2008.

In 2011, EYW and the FAA agreed it would be appropriate to prepare an update to the NEMs and NCP. On October 29, 2013, the Monroe County Board of County Commissioners submitted the Noise Exposure Maps and Supporting Documentation to the FAA. The 2013 Existing Condition and 2018 Future Condition NEMs were found to be in compliance with applicable requirements by the FAA on December 19, 2013. On September 15, 2014, the Monroe County Board of County Commissioners submitted to the FAA the descriptions of the Sponsor's proposed noise compatibility measures and other documentation produced during the Noise Exposure Map and Noise Compatibility Program Update study conducted from November 2011 through September 14, 2014. This NCP is an update to the one approved in 1999 and consists of the Sponsor's recommendations to implement twenty-five (25) program measures. Of these 25 program measures, the Sponsor only requested FAA approval of thirteen (13), including seven (7) Land Use measures and six (6) Program Management measures. The FAA completed its review and determined that

the procedural and substantive requirements of the Aviation Safety and Noise Abatement Act and 14 CFR Part 150 had been satisfied. The overall program, therefore, was approved by the FAA effective March 11, 2015. All the recommendations of the program that requested FAA approval were approved.

Section A.2 details the recommendations for which the Monroe County Board of County Commissioners sought FAA approval under the most recent Part 150 Study process (2015). **Section A.3** lists measures that the County and/or Key West International Airport have vested authority to implement (i.e., those not requiring FAA approval). **Section A.4** describes operational measures that were recommended in the Original NCP and were approved by the FAA. **Section A.5** describes operational measures that were recommended in the Original NCP that were disapproved by the FAA. **Section A.6** describes and illustrates the status of the Noise Insulation Program.

Note that measures beginning with “LU” are land use measures, “PM” are program management measures, and “OM” are operational measures.

A.2 MEASURES RECOMMENDED BY THE AIRPORT SPONSOR AND APPROVED BY THE FAA

LU-1 Provide noise insulation for noncompatible structures in exchange for avigation easements

It is recommended that owners of noncompatible dwelling units and certain other noise sensitive structures located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM be offered the opportunity to participate in a Noise Insulation Program (NIP). The NIP shall include noncompatible single- and multi-family dwelling units located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM, which includes Key West by the Sea Condominiums, the Flagler Court Townhomes, as well as the noise sensitive Grace Lutheran Church and School, and the Catholic Charities Facility that are determined to be noncompatible in accordance with FAA Order 5100.38D Appendix R.

Property owners will be required to grant avigation easements to Monroe County in exchange for noise insulation. The avigation easement will remain valid until noise levels exceed those shown on the Year 2013 Existing Condition Noise Exposure Map, at which point the easement is no longer binding.

2015 FAA Action: Approved. While the FAA does not require that an easement be given in exchange for sound insulation, the Sponsor has the discretion to impose such a requirement. The measure itself need not be tied specifically to the 2013 NEM. If NEMs are updated in the future, without an NCP update, this measure would be applicable to eligible structures within the 65+ dB contour of any future FAA accepted NEMs determined to accurately reflect the airport’s operations at the time of the request for FAA funding. The Sponsor shall seek FAA approval of the final language of any avigation easement(s) acquired under this measure prior to execution of such easement(s).

Measure History: In the Original NCP the Sponsor submitted this measure for FAA approval:

Provide Noise Insulation in Exchange for Avigation Easements:

A program for noise insulation of existing noncompatible structures is recommended for noncompatible single-family dwellings (and multi-family dwellings of four units or less) within the DNL 65+dB contour of the Year 2003 Future Condition Noise Exposure Map, With Program Implementation, in exchange for an avigation easement. Priority should be given first to homeowners located within the DNL 75 dB contour, then to homeowners located within the DNL 70 dB contour, and finally to homeowners located within the DNL 65 dB contour. The avigation easement will remain valid until noise levels exceed those projected for the year 2003 Future Condition Noise Exposure Map, Without Program Implementation. Eligible homeowners will be given the option of participating in either this program or the purchase program in Measure 4 below. If funding is not adequate to implement both programs simultaneously, this program will be offered first.

A program for noise insulation of noncompatible structures is also recommended for Key West High School. At the time when the high school is being renovated, measures to achieve a Noise Level Reduction (NRL) of 30 dB should be incorporated into the design and construction of all classrooms, libraries, offices, and other rooms for which noise insulation is specifically justified because of the substantial and disruptive effect of aircraft noise.

In its May 7, 1999 Record of Approval (ROA), the FAA approved this measure with no additional verbiage.

Current Status: Since approval in 1999, the Sponsor has successfully implemented the measure from 2000 to 2012 and 2016 to 2022. Key West High School was rebuilt with noise attenuation measures incorporated in the design and construction of the buildings. By May 2023, a total of 296 out of 336 eligible single-family homes and 185 out of 206 eligible condominiums will have participated in the residential noise insulation program. This will result in a participation rate of almost 90% at Key West by the Sea (KW BTS) and just over 88% for the single-family homes.

LU-2 Purchase avigation easements

It is recommended that owners of noncompatible dwelling units and other noise sensitive structures located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM that do not participate in the NIP be offered the opportunity to participate in the Avigation Easement Acquisition Program. The Avigation Easement Acquisition Program shall include noncompatible single- and multi-family dwelling units located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM as well as Grace Lutheran Church and School, and the Catholic Charities Facility that are determined to be noncompatible in accordance with FAA Order 5100.38D Appendix R.

2015 FAA Action: Approved. This measure need not be tied specifically to the 2013 NEM. If NEMs are updated in the future, without an NCP update, this measure would be applicable to eligible structures within the 65+ dB contour of any future FAA accepted NEMs determined to accurately reflect the airport's operations at the time of the request for FAA funding. The Sponsor

shall seek FAA approval of the final language of any aviation easement(s) acquired under this measure prior to execution of such easement(s).

Measure History: None. This is a new measure introduced in 2015.

Current Status: Since its approval in 2015, the Sponsor has not implemented the measure.

LU-3 Rescind approval of the 1999 ROA measure to purchase homes, provide noise insulation, and then resell the homes with aviation easements

In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved a measure to purchase homes, provide noise insulation, and resell the homes with an aviation easement. It is recommended that approval of this measure be rescinded due to the successful implementation of the NIP, and the high cost of implementing such a measure.

2015 FAA Action: Approved. At the Sponsor's request and in accordance with 14 CFR Part 150.35(d)(5), the FAA withdraws its 1999 approval for the following measure originally published in the 1999 ROA:

***Purchase Homes, Provide Noise Insulation, then Resell with Easements.** A program to purchase existing homes, provide noise insulation, then resell the homes with aviation easements is recommended for noncompatible single-family dwellings (and multi-family dwellings of four units or less) within the DNL65+dB contour of the Year 2003 Future Condition Noise Exposure Map, With Program Implementation. Priority should be given first to homeowners located within the DNL 75 dB contour, then to homeowners located within the DNL 70 dB contour, and finally to homeowners located within the DNL 65 dB contour. The aviation easement will remain valid until noise levels exceed those projected for the year 2003 Future Condition Noise Exposure Map, Without Program Implementation. Eligible homeowners will be given the option of participating in either this program or the noise insulation program in Measure 3 above. If funding is not adequate to implement both programs simultaneously, Measure 3 will be offered first.*

Measure History: In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved the above measure with no further verbiage. Since approval in 1999, the Sponsor has not implemented the measure.

LU-4 Rescind approval of the 1999 ROA measure to rezone two vacant parcels

In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved a measure to rezone two vacant parcels to prevent noncompatible development. These properties are located at the corner of Flagler Avenue and 11th Street, and on South Roosevelt Boulevard adjacent to airport property. It is recommended that approval of this measure be rescinded. It will be replaced with a new local measure, LU-6, that is under the jurisdiction of Monroe County, rather than the City of Key West.

2015 FAA Action: Approved. Because the City of Key West has not agreed to rezone the two subject parcels, at the Sponsor's request and in accordance with 14 CFR Part 150.35(d)(5), the FAA withdraws its 1999 approval for the following measure originally published in the 1999 ROA:

Rezone Vacant Parcels.

It is recommended that the County of Monroe direct a written request to the City of Key West to rezone two vacant parcels to prevent noncompatible development. One parcel on the southwest corner of Flagler Avenue and 11th Street (Parcel ID # 65100.000000) would be rezoned from single family residential development (SF) to an airport noise compatible land use zoning such as limited commercial (LC). Another parcel on South Roosevelt Boulevard (Parcel ID # 65090.000100) would be rezoned from coastal low density residential (LDR-C) to an airport noise and public safety compatible land use zoning such as limited commercial (LC).

Measure History: In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved the above measure with no further verbiage. Since approval in 1999, this measure was not implemented by the Airport Sponsor because the City of Key West did not agree to rezone the two parcels.

Current Status: The Monroe County Board of County Commissioners purchased the parcel on the southwest corner of Flagler Avenue and 11th Street (Parcel ID # 65100.000000) on November 6, 2013 for \$500,000, according to the Monroe County Property Appraiser's office. The Warranty Deed was filed and recorded in the official records of Monroe County in Book 2658, Pages 1224-1225, Document Number 1957590 on November 14, 2013.

LU-5 Rescind approval of the 1999 ROA measure to acquire the vacant parcel at the corner of Flagler Avenue and 11th Street

In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved a measure to acquire the vacant parcel, located at the corner of Flagler Avenue and 11th Street to prevent noncompatible development. It is recommended that approval of this measure be rescinded. It will be replaced with new measure LU-6.

2015 FAA Action: Approved. At the Sponsor's request and in accordance with 14 CFR Part 150.35(d)(5), the FAA withdraws its 1999 approval for the following measure originally published in the 1999 ROA:

Acquire Vacant Parcel.

It is recommended that the vacant parcel on the southwest corner of Flagler Avenue and 11th Street (Parcel ID # 65100.000000) be acquired to prevent noncompatible development if the City of Key West does not rezone the parcel to an airport noise compatible land use zoning.

Measure History: In its May 7, 1999 ROA of the Key West NCP, the FAA approved the above measure stating:

Approved under 14 CFR Part 150 with respect to the described vacant land within the DNL 65 dB contour where it can be demonstrated that the property is in imminent danger of being developed noncompatibly and local controls are insufficient to prevent that development. Mitigation with respect to new noncompatible development that is allowed to occur on this property is outside the parameters of this Part 150 approval. However, the FAA would encourage local government to exercise its prerogative to change the zoning to a compatible use prior to development.

LU-6 Purchase an avigation easement from the owner of the vacant parcel at the corner of Flagler Avenue and 11th Street

It is recommended that the owner of the vacant parcel located at the corner of Flagler Avenue and 11th Street (Parcel ID: 00065090-000100) be offered the opportunity to sell an avigation easement to Monroe County. In addition to permitting aircraft overflight and associated noise, this avigation easement will specifically prohibit noncompatible development on this parcel.

2015 FAA Action: Approved. Eligibility for FAA funding will be determined by the FAA in accordance with the current FAA Order 5100.38, *Airport Improvement Program (AIP) Handbook* when the grant application is submitted for consideration.

Measure History: None. This is a new measure introduced in 2015.

Current Status: On May 15, 2014, the City of Key West Planning Commission passed Planning Board Resolution No. 2014-33. This Resolution stated that “prior to issuance of a certificate of occupancy, the applicant must demonstrate that the buildings will be sound-proof per Section due to their proximity to the airport and their location within a noise-contour zone in compliance with Section 26-191(1).” In June 2015, Monroe County applied for FAA grant funds to acquire the Avigation Easement. In April 2016, the FAA approved the Avigation Easement proposed by Monroe County. In June 2016, Monroe County (through their noise consultants) reached out to the developer, Randy Allen with Reef Enterprises, LLC, to determine if there was any interest in selling an Avigation Easement to Monroe County, which there was not. By August 2016, two building were constructed, and the City of Key West required the developer to provide a testing report from a qualified acoustical consultant or engineer, experienced in conducting NLR field testing, verifying that the buildings meet an average outdoor-to-indoor noise level reduction (NLR) of 25 dB or greater. A total of ten (10) single-family dwellings were constructed and are known as the Enclave on Riviera.

LU-7 Rescind approval of the measure to establish airport noise and public safety compatible land use zoning

In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved a measure directing Monroe County and the City of Key West to develop airport noise and public safety compatible land use zoning to prevent noncompatible development in the vicinity of the airport. It is recommended that approval of this measure be rescinded. It will be replaced with a new local measure, PM-10.

2015 FAA Action: Approved. At the Sponsor's request and in accordance with 14 CFR Part 150.35(d)(5), the FAA withdraws its 1999 approval for the following measure originally published in the 1999 ROA:

Establish Compatible Land Use Zoning.

Establishment of airport noise compatible land use zoning and public safety compatible land use zoning is recommended, as required by Florida Statutes Chapters 163 and 333. The County of Monroe will seek the cooperation of the City of Key West to establish airport noise compatible land use zoning and public safety compliance land use zoning.

Measure History: In its May 7, 1999 ROA of the Key West Noise Compatibility Program, the FAA approved the above measure with no further verbiage. Since approval in 1999, this measure was not implemented by the Airport Sponsor because the City of Key West did not update the City's Land Development Code prior to recommendation of PM-10.

PM-1 Continue to utilize a consultant to fulfill the role of Airport Noise Program Coordinator

It is recommended that Monroe County continue to utilize a consultant to fulfill the role of Airport Noise Program Coordinator.

2015 FAA Action: Approved. Eligibility for FAA funding will be determined by the FAA in accordance with the current FAA Order 5100.38, *Airport Improvement Program (AIP) Handbook* when the grant application is submitted for consideration.

Measure History: None. This is a new measure introduced in 2015.

Current Status: Deborah Murphy Lagos & Associates has been the Airport Noise Program Coordinator since 2015.

PM-3 Prepare, print, and distribute full color informational inserts in a format that is compatible with the Jeppesen Sanderson manual, which describe all voluntary noise abatement procedures

It is recommended that KWIA prepare, print, and distribute a full color informational insert in a format that is compatible with the Jeppesen Sanderson manual that provides a description of all components of KWIA's voluntary operational noise abatement program. This would be useful for educating both citizens and pilots. It is recommended that KWIA provide color copies of the pilot handout to the Fixed Base Operator (FBO) and airline station managers, and ask that they be placed in accessible locations at the FBO and distributed to pilots. Prior to release, language in the pilot handout should be reviewed for wording and content by the appropriate FAA office. The content of the pilot handout is subject to specific approval by appropriate FAA officials.

2015 FAA Action: Approved. Prior to release, language in the pilot handout must be reviewed and approved for wording and content by the appropriate FAA office. The content of the pilot handout is subject to specific approval by appropriate FAA officials.

Measure History: None. This is a new measure introduced in 2015.

Current Status: A double-sided 8.5" x 11" pilot handout was prepared, and FAA approval was obtained on September 19, 2016. Color copies of the pilot handout were distributed to the FBO and airline station managers. The FBO placed the handouts in a location that is easily accessible to pilots. The Airport Noise Program Coordinator replenishes the supply of handouts as needed. **Figures A.1 – A.2** are a copy of the pilot handout. The handout is also available on the airport's website at <https://eyw.com/noise-concerns>.

PM-4 Post framed, weatherproof, large-scale versions of pilot handout on the airside at the FBO and airline terminal

It is recommended that KWIA provide a framed, weatherproof, large-scale version of the pilot handout to the FBO to be posted on the airside where it can be seen by pilots as they enter and exit the FBO. It is also recommended that KWIA post a framed, weatherproof, large-scale version of the pilot handout on the airside at the airline terminal where it can be seen by commercial service pilots as they enter and exit the terminal.

2015 FAA Action: Approved. Prior to publication and release, the language in the large-scale pilot handout must be reviewed and approved for wording and content by the appropriate FAA office. The content of the pilot handout is subject to specific approval by appropriate FAA officials.

Measure History: None. This is a new measure introduced in 2015.

Current Status: Since its approval in 2015, the Sponsor has not implemented the measure because an appropriate location could not be located.

PM-6 Purchase and install lighted airfield information signs to promote use of voluntary noise abatement procedures

It is recommended that that KWIA purchase lighted information signs to be installed on the airfield to promote the use of noise abatement procedures. These signs will replace the existing signs. Prior to purchase and installation, the proposed language on signage must be reviewed and approved by the FAA. The signs must be designed and installed in accordance with FAA Advisory Circular 150/5340-18E, *Standards for Airport Sign Systems*.

2015 FAA Action: Approved. Prior to purchase and installation, the proposed language on signage, which must clearly indicate that the noise abatement procedures are voluntary, must be reviewed and approved by the appropriate FAA office and the signs must be designed and installed in accordance with current version of FAA Advisory Circular 150/5340-18, *Standards for Airport Sign Systems*, at the time of the request regardless of the funds source.

Measure History: None. This is a new measure introduced in 2015.

Current Status: Since its approval in 2015, the Sponsor has not implemented the measure.

PM-7 Establish a noise and flight track monitoring program by acquiring two portable noise monitors and an FAA-approved flight track monitoring system

It is recommended that KWIA establish a noise and flight track monitoring program and acquire two portable noise monitors and an FAA-approved flight track monitoring system. The noise and flight track monitoring system will not be used for enforcement purposes either by in-situ measurement of any preset noise thresholds or for mandatory enforcement of any voluntary noise abatement measure.

2015 FAA Action: Approved. However, for purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any pre-set noise thresholds and shall not be used for mandatory enforcement of any voluntary measure.

Measure History: None. This is a new measure introduced in 2015.

Current Status: Since its approval in 2015, the Sponsor has not implemented the measure.

PM-8 Update noise contours as needed

In order to identify and disclose any significant changes in the size or shape of the noise contours it is recommended that the County of Monroe update the KWIA noise contours for comparison to the *Year 2013 Existing Condition Noise Exposure Map*, if certain criteria are met. These criteria can be monitored and documented using the noise and flight track monitoring system.

2015 FAA Action: Approved. Eligibility for FAA funding will be determined by the FAA in accordance with the current FAA Order 5100.38, *Airport Improvement Program (AIP) Handbook* when the grant application is submitted for consideration. The FAA requires sponsors update their NEMs in accordance with 14 CFR Part 150.21(d)(1) – (4).

Measure History: In the Original NCP the Sponsor submitted this measure for FAA approval:

Update Noise Contours Annually.

In order to monitor compliance with the aviation easement noise level limit in measures 3 and 4 above, it is recommended that the County of Monroe update the Key West International Airport noise contours annually for comparison with the Year 2003 Future Condition Noise Exposure Map, Without Program Implementation.

In its 1999 Record of Approval, the FAA approved this measure with no additional verbiage.

Current Status: On September 3, 2020, the FAA provided AIP Grant 3-12-0037-061-2020 which included funding for preparation of an update to the Noise Exposure Maps. The updated Noise Exposure Maps are included in this report.

The following verbiage (or similar verbiage as applicable) was included in the ROA for several of the measures described above (i.e., LU-1, LU-2, LU-6, PM-1, PM-3, PM-4, PM-6, PM-7, and PM-8), so rather than repeating it, it is included below.

FAA Order 5100.38 sets forth guidance on the administration of the Airport Improvement Program. Its applicability or use by the FAA, in the context of a Part 150 study, is for making funding eligibility determinations when evaluating Sponsor project funding applications. The actual project or program area eligible for FAA funding is determined by the FAA at the time the Sponsor submits each grant application. FAA funding can only be used for structures that meet FAA funding eligibility criteria at the time of the grant application. This does not preclude the Airport Sponsor from using local funds to mitigate structures that FAA determines are ineligible for FAA funding.

A.3 MEASURES RECOMMENDED BY THE AIRPORT SPONSOR THAT DO NOT REQUIRE FAA APPROVAL

OM-1 Voluntary use of Ground Power Units when time and safety permit

It is recommended that aircraft make voluntary use of available Ground Power Units (GPUs) in place of the on-board aircraft Auxiliary Power Units (APUs) when time and safety permit. The use of GPUs may reduce ground noise associated with the operation of the airport and will reduce air emissions and fuel usage by aircraft.

Current Status: This measure has been implemented and is included on the pilot handout.

OM-2 Continue use of designated aircraft run-up locations

It is recommended that Key West International Airport continue use of the designated run-up locations.

Current Status: This measure has been implemented and is included on the pilot handout and in the Airport Facility Directory.

OM-3 Voluntary use of intersection departures on Runway 09

It is recommended that aircraft departing from Runway 09 use an intersection departure at Taxiway C, safety, weather and aircraft performance permitting. The use of the Taxiway C intersection departure will reduce departure noise at noise sensitive locations west of Runway 09.

Current Status: During the development of the pilot handout the Ad-Hoc Committee decided not to include this measure on the pilot handout.

OM-4 Continue use of a wide variety of flight paths on approach to Runway 09

It is recommended that smaller aircraft continue to use a variety of flight paths during daytime hours as they approach to land on Runway 09.

Current Status: This measure has been implemented and is included on the pilot handout.

OM-5 Voluntary southerly helicopter arrival and departure tracks

It is recommended that rotary wing aircraft (helicopters) depart and arrive to the south to avoid low overflights of noise sensitive land uses directly north of the airport. The helicopters have the ability to safely operate at altitudes below those at which the Naval Air Station Key West (NASKW) aircraft are transitioning through the airspace, and as a voluntary measure, would not apply to the “first responder” helicopter operations that occur at KWIA.

Current Status: This measure has been implemented and is included on the pilot handout.

OM-6 Adherence to voluntary practices for air tour and aerial advertising flights

It is recommended that pilots of all air tour and/or aerial advertising flights adhere to the voluntary practices set forth in FAA AC 91-36D and/or the Community Operational Sensitivity standards included in the “Aerial Media Code of Conduct.”

Current Status: This measure has been implemented and is included on the pilot handout.

OM-7 Continue voluntary avoidance of direct flight over Key West by the Sea Condominiums by pilots of air tours and aerial advertising flights

It is recommended that KWIA continue to discourage pilots of air tours and aerial advertising flights from flying directly over Key West by the Sea Condominiums.

Current Status: This measure has been implemented and is included on the pilot handout.

OM-8 Continue voluntary use of noise abatement arrival and departure procedures

It is recommended that KWIA continue to encourage pilots to use the voluntary National Business Aircraft Association (NBAA) close-in noise abatement departure procedure. Further, it is recommended that Visual Flight Rule (VFR) aircraft continue the voluntary use of specific departure procedures requiring maintaining runway heading until reaching the airport boundary. In addition,

it is recommended that the appropriate arriving and departing aircraft use voluntary propeller and power adjustments, as safety allows.

Current Status: This measure has been implemented and is included on the pilot handout and in the Airport Facility Directory.

OM-9 Continue voluntary curfew of aircraft activity between 11:00 p.m. and 7:00 a.m.

It is recommended that KWIA continue to encourage pilots to observe the voluntary curfew on aircraft activity between 11:00 p.m. and 7:00 a.m.

Current Status: This measure has been implemented and is included in the Airport Facility Directory.

LU-8 Work with the City of Key West to adopt policies to encourage compatible development

The Airport Sponsor and the City of Key West agreed to work together to adopt policies to encourage compatible development around the Key West International Airport. The proposed policies would require new (or substantial improvement to existing) noise-sensitive structures located within the DNL 65+ dB noise contour to incorporate noise attenuation measures to achieve appropriate outdoor-to-indoor Noise Level Reduction (NLR). These measures can be incorporated into the design and construction of certain types of buildings, such as homes, schools, hospitals, and churches. For sites that fall between the DNL 65- and 70-dB contours, the recommended NLR is a minimum of 25 dB. For sites that fall between the DNL 70- and 75-dB contours, the recommended NLR is a minimum of 30 dB.

Current Status: The Director of Airports and Airport Noise Program Coordinator met with members of the Planning Department on June 14, 2016 to discuss airport noise planning. It was suggested to the City Planning staff that we could develop Acoustical Building Requirements to provide guidance on the products (e.g., windows and doors) that should be used to achieve the required NLR.

PM-2 Continue holding meetings of Monroe County's Ad-Hoc Committee on Noise

It is recommended that Monroe County and KWIA continue holding meetings of the Ad-Hoc Committee on Noise. The Ad-Hoc Committee on Noise has been a valuable forum for interacting with the public and disseminating information about KWIA's noise program. Ad-Hoc Committee meetings provide the public with an opportunity to express their viewpoints, ideas and concerns about aircraft noise resulting from aircraft operations to and from Key West International Airport.

Current Status: The Ad-Hoc Committee currently meets four times each calendar year. Meeting schedule, agendas, and minutes are posted on the airport's website at <https://eyw.com/noise-concerns>.

PM-5 Subscribe to Whispertrack™ to facilitate distribution of voluntary noise abatement procedures

It is recommended that KWIA purchase a subscription to Whispertrack™ to facilitate distribution of voluntary noise abatement procedures.

Current Status: Since its approval in 2015, the Sponsor has not implemented the measure.

A.4 MEASURES RECOMMENDED BY THE AIRPORT SPONSOR IN THE 1999 NCP APPROVED BY THE FAA

LU-3 Provide Noise Insulation in Exchange for Avigation Easements

A program for noise insulation of existing noncompatible structures is recommended for noncompatible single-family dwellings (and multi-family dwellings of four units or less) within the DNL 65+dB contour of the Year 2003 Future Condition Noise Exposure Map, With Program Implementation, in exchange for an avigation easement. Priority should be given first to homeowners located within the DNL 75 dB contour, then to homeowners located within the DNL 70 dB contour, and finally to homeowners located within the DNL 65 dB contour. The avigation easement will remain valid until noise levels exceed those projected for the year 2003 Future Condition Noise Exposure Map, Without Program Implementation. Eligible homeowners will be given the option of participating in either this program or the purchase program in Measure 4 below. If funding is not adequate to implement both programs simultaneously, this program will be offered first.

A program for noise insulation of noncompatible structures is also recommended for Key West High School. At the time when the high school is being renovated, measures to achieve a Noise Level Reduction (NRL) of 30 dB should be incorporated into the design and construction of all classrooms, libraries, offices, and other rooms for which noise insulation is specifically justified because of the substantial and disruptive effect of aircraft noise.

1999 FAA Action: Approved

LU-4 Purchase Homes, Provide Noise Insulation, then Resell with Easements

A program to purchase existing homes, provide noise insulation, then resell the homes with avigation easements is recommended for noncompatible single-family dwellings (and multi-family dwellings of four units or less) within the DNL 65+ dB contour of the Year 2003 Future Condition Noise Exposure Map, With Program Implementation. Priority should be given first to homeowners located within the DNL 75 dB contour, then to homeowners located within the DNL 70 dB contour, and finally to homeowners located within the DNL 65 dB contour. The avigation easement will remain valid until noise levels exceed those projected for the year 2003 Future Condition Noise Exposure Map, Without Program Implementation. Eligible homeowners will be given the option of participating in either this program or the noise insulation program in Measure 3 above. If funding is not adequate to implement both programs simultaneously, Measure 3 will be offered first.

1999 FAA Action: Approved

LU-5 Update Noise Contours Annually

In order to monitor compliance with the aviation easement noise level limit in measures 3 and 4 above, it is recommended that the County of Monroe update the Key West International Airport noise contours annually for comparison with the Year 2003 Future Condition Noise Exposure Map, Without Program Implementation.

1999 FAA Action: Approved

LU-6 Rezone Vacant Parcels

It is recommended that the County of Monroe direct a written request to the City of Key West to rezone two vacant parcels to prevent noncompatible development. One parcel, on the southwest corner of Flagler Avenue and 11th Street (Parcel ID#65100.000000) would be rezoned from single family residential development (SF) to an airport noise compatible land use zoning such as limited commercial (LC). Another parcel on South Roosevelt Boulevard (Parcel ID#65090.000100) would be rezoned from coastal low-density residential (LDR-C) to an airport noise and public safety compatible land use zoning such as limited commercial (LC).

1999 FAA Action: Approved

LU-7 Acquire Vacant Parcels

It is recommended that the vacant parcel on the southwest corner of Flagler Avenue and 11th Street (Parcel ID#65100.000000) be acquired to prevent noncompatible development if the City of Key West does not rezone the parcel to an airport noise compatible land use zoning.

1999 FAA Action: Approved under 14 CFR Part 150 with respect to the described vacant land within the DNL 65 dB contour where it can be demonstrated that the property is in imminent danger of being developed non-compatibly and local controls are insufficient to prevent that development. Mitigation with respect to new noncompatible development that is allowed to occur on this property is outside the parameters of this Part 150 approval. However, the FAA would encourage local government to exercise its prerogative to change the zoning to a compatible use prior to development.

LU-8 Establish Compatible Land Use Zoning

Establishment of airport noise compatible land use zoning and public safety compatible land use zoning is recommended, as required by Florida Statutes Chapter 163 and 333. The County of Monroe will seek the cooperation of the City of Key West to establish airport noise compatible land use zoning and public safety compatible land use zoning.

1999 FAA Action: Approved

**A.5 MEASURES RECOMMENDED BY THE AIRPORT SPONSOR IN THE 1999 NCP
DISAPPROVED BY THE FAA**

OM-1 Conduct a Part 161 analysis of an access restriction prohibiting the operation of non-Stage 3 jet aircraft weighing less than 75,000 pounds at the airport.

An FAR Part 161 analysis is recommended to further study an access restriction prohibiting the operation of non-Stage 3 private/corporate jet aircraft weighing less than 75,000 pounds maximum gross weight at Key West International Airport to reduce existing noncompatible land uses and impacted populations. The access restriction to be studied includes a transition program that would initially prohibit such aircraft operations between the hours of 9:00 p.m. and 7:00 a.m. Two years later, all such operations would be prohibited from operating at the airport. This access restriction is not being recommended as an operational noise abatement measure at this time. The access restriction is recommended for further study, a Part 161 analysis, and integration into a Part 150 update.

1999 FAA Action: Disapproved for purposes of Part 150. With full implementation of the land use measures in this NCP, the airport operator can accomplish 100 percent compatible land uses within the DNL 65dB contour. The proposal to perform a FAR Part 161 study is not considered to be an eligible noise project under Part 150 because it does not meet criteria described in FAA's policy statement issued in the Federal Register on September 16, 1996. More specifically, the Part 161 proposed study does not meet Part 150 approval criteria of reducing noncompatible land uses beyond achievements gained by the nonrestrictive measures that are approved in this NCP. This disapproval for purposes of Part 150 does not preclude the airport operator from pursuing a Part 161 analysis outside the scope of the Part 150 process.

OM-2 Conduct an FAR Part 161 analysis to further study an access restriction prohibiting aircraft from operating at the airport between the hours of midnight and 6:00 a.m.

A FAR Part 161 analysis is recommended to further study an access restriction prohibiting aircraft from operating at Key West International Airport between the hours of midnight and 6:00 a.m. to reduce neighborhood disturbance during these hours. This access restriction is not being recommended as an operational noise abatement measure at this time. The access restriction is recommended for further study, a Part 161 analysis, and integration into a Part 150 update.

1999 FAA Action: Disapproved for purposes of Part 150. With full implementation of the land use measures in this NCP, the airport operator can accomplish 100 percent compatible land uses within the DNL 65 dB contour. The proposal to perform a FAR Part 161 study is not considered to be an eligible noise project under Part 150 because it does not meet criteria described in FAA's policy statement issued in the Federal Register on September 16, 1996. More specifically, the Part 161 proposed study does not meet Part 150 approval criteria of reducing noncompatible land uses beyond achievements gained by the nonrestrictive measures that are approved in this NCP. This disapproval for purposes of Part 150 does not preclude the airport operator from pursuing a Part 161 analysis outside the scope of the Part 150 process.

A.6 HISTORY AND STATUS OF THE NOISE INSULATION PROGRAM

The FAA's Record of Approval (ROA) for the 1999 NCP approved the following recommendation:

“A program for noise insulation of existing noncompatible single-family dwellings (and multi-family dwellings of four units or less) within the DNL 65+ dB contour of the Year 2003 Future Condition Noise Exposure Map, in exchange for an avigation easement. Priority should be given first to homeowners located within the DNL 75 dB contour, then to homeowners located within the DNL 70 dB contour, and finally to homeowners located within the DNL 65 dB contour. The avigation easement will remain valid until noise levels exceed those projected for the Year 2003 Future Condition Noise Exposure Map. Eligible homeowners will be given the option of participating in either this program or the purchase program described below. If funding is not adequate to implement both programs simultaneously, this program will be offered first.

A program for noise insulation of noncompatible structures is also recommended for Key West High School. At the time when the high school is being renovated, measures to achieve a Noise Level Reduction (NLR) of 30 dB should be incorporated into the design and construction of all classrooms, libraries, offices, and other rooms for which noise insulation is specifically justified because of the substantial and disruptive effect of aircraft noise.”

On October 5, 2000, the FAA approved the Policies & Procedures for the Noise Insulation Program (NIP), including the Phasing Plan for Phases 1 through 7. [Figure A.3](#) shows the Program Mitigation Area that was approved in the year 2000, based on the *Year 2003 Future Condition Noise Exposure Map*. The County of Monroe began implementing the NIP in 2000, as federal funding was provided through the Airport Improvement Program (AIP).

On December 12, 2004, the President of the United States signed into law the *Vision 100 - Century of Flight Authorization Act of 2003*, Public Law 108-176 (Vision 100). Vision 100 extended AIP funding through September 30, 2007. Vision 100 generally amended Title 49, United States Code (U.S.C.), to prohibit AIP funding for noise mitigation outside the DNL 65 dB contour.

On July 21, 2005, the FAA made the determination that Phases 6 and 7, and one block of Phase 5 were no longer eligible for participation in the NIP, because of the provision included in Vision 100, and the fact that these parcels were not within the current DNL 65 dB contour, as documented by the annual noise contour updates. This accounted for a total of 110 homes in the initial analysis of these areas. The FAA indicated that these parcels could be reconsidered at a later date, if subsequent noise contours show that the DNL 65 dB contour impacts these homes.

The 2005 Noise Contour Update was completed in February 2007. The 2005 DNL 65 dB contour included the area formerly designated as Phase 6 of the NIP, as well as a few additional homes along Riviera Drive that were not previously included in Phase 6. The FAA agreed to include the recommended 61 homes in

Phase 6, and the 11 additional homes on Riviera Drive not previously included, and provided funding to design the NIP modifications. **Figure A.4** depicts the homes that that the FAA approved as Phase 6 based on the 2005 Noise Contour Update.

The 2008 NEMs were accepted by the FAA on August 27, 2008. The 2008 DNL 65 dB contour included the area formerly designated as Phase 7 of the NIP, primarily located on Linda Avenue, Government Road, and Flagler Avenue. The FAA agreed to include the recommended 45 homes in Phase 7 and provided funding to design the NIP modifications. **Figure A.5** depicts the homes from the original Phase 7 that were re-included in the NIP based on the 2008 NEM Update.

All seven phases of the “original” NIP were completed by June 2010 and included the insulation of 295 homes. Forty-one (41) of the eligible homes did not participate, for a variety of reasons. Some of the homes were in foreclosure and the banks or mortgage companies would not allow the house to be included. In other cases, homeowners were ill or were experiencing other personal situations at the time and chose not to participate. A few just did not want to be bothered. **Table A.1** provides the breakdown of these homes by phase and year completed. **Figure A.6** depicts the 295 homes that were insulated in the “original” NIP.

**TABLE A.1
NUMBER OF HOMES INSULATED IN THE “ORIGINAL” NIP, BY PHASE**

PHASE	1	2	3	4	5	6	7	TOTAL
# OF HOMES ELIGIBLE	25	25	50	57	62	72	45	336
NUMBER OF HOMES COMPLETED	21	22	38	54	57	68	35	295
YEAR COMPLETED	2003	2004	2005	2006	2007	2009	2010	87.8%

Source: Deborah Murphy Lagos & Associates, 2022

The *2013 Existing Condition* and *2018 Future Condition NEMs* were accepted by the FAA on December 19, 2013. The NCP Update was approved by the FAA on March 12, 2015.

The FAA’s Record of Approval for the 2015 NCP approved the following recommendation:

It is recommended that owners of noncompatible dwelling units and certain other noise sensitive structures located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM be offered the opportunity to participate in a Noise Insulation Program (NIP). The NIP shall include noncompatible single- and multi-family dwelling units located within the DNL 65+ dB noise contour of the 2013 Existing Condition NEM, which includes Key West by the Sea Condominiums, the Flagler Court Townhomes, as well as the noise sensitive Grace Lutheran Church and School, and the Catholic Charities Facility that are determined to be noncompatible in accordance with FAA Order 5100.38D Appendix R.

Property owners will be required to grant avigation easements to Monroe County in exchange for noise insulation. The avigation easement will remain valid until noise levels exceed those shown on the Year 2013 Existing Condition Noise Exposure Map, at which point the easement is no longer binding.

2015 FAA Action: Approved. *While the FAA does not require that an easement be given in exchange for sound insulation, the Sponsor has the discretion to impose such a requirement. The measure itself need not be tied specifically to the 2013 NEM. If NEMs are updated in the future, without an NCP update, this measure would be applicable to eligible structures within the 65+ dB contour of any future FAA accepted NEMs determined to accurately reflect the airport’s operations at the time of the request for FAA funding. The Sponsor shall seek FAA approval of the final language of any avigation easement(s) acquired under this measure prior to execution of such easement(s).*

Implementation began later in 2015. The FAA required that the four (4) single-family homes within the DNL 70 dB noise contour that didn’t participate in the “original” NIP be offered another opportunity to participate in the first phase of the implementation. Implementation at KWBTs was broken into several phases, spanning several years from 2016 through 2023. One (1) of the four (4) single-family homes in the DNL 70 dB noise contour chose to participate and was included in the first phase.

By May 2023, a total of 296 out of 336 eligible single-family homes and 185 out of 206 eligible condominiums will have participated in the residential noise insulation program. This will result in a participation rate of almost 90% at Key West by the Sea and just over 88% for the single-family homes.

Table A.2 provides the breakdown of KWBTs condominiums by phase and year completed. **Figure A.7** depicts the KWBTs condominiums that participated in the NIP. **Figure A.8** depicts the 296 single-family homes that participated in the NIP.

**TABLE A.2
NUMBER OF KWBTs CONDOMINIUMS INSULATED IN THE NIP, BY PHASE**

PHASE	BLDG. B, FLOORS 1-2	BLDG. B, FLOORS 3-6	BUILDING C	BLDG. A, PHASE 1	BLDG. A PHASE 2	FINAL PHASE	TOTAL
NUMBER OF CONDOS ELIGIBLE	21	44	76	31	28	6+ cleanup	206
NUMBER OF CONDOS COMPLETED	17	32	65	28	27	16	185
YEAR COMPLETED	2018	2019	2020	2021	2022	2023	90%

Sources: Deborah Murphy Lagos & Associates, 2022, THC, 2022

A.7 REFERENCES

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KEY WEST INTERNATIONAL AIRPORT—EYW

VOLUNTARY NOISE ABATEMENT PROCEDURES

Curfew

- Please observe the voluntary curfew on aircraft activity between 11:00 pm and 7:00am local time.

Ground Power Units (GPUs)

- When time and safety permit, please use available GPUs in place of on-board Auxiliary Power Units (APUs).

Arrival and Departure Procedures

When weather, time, safety, and aircraft performance permit:

- Please avoid direct overflight of multi-family residential buildings that are in close proximity to the airport.
- Aircraft departing VFR on Runway 27, please maintain runway heading until reaching the airport boundary.
- Aircraft arriving VFR on Runway 09, please coordinate with ATC to use a variety of flight paths during daylight hours when on approach.
- Departing jet aircraft please use NBAA noise abatement departure procedure or airline-approved noise abatement departure procedure.
- Propeller aircraft please use propeller and power adjustments, as safety allows.

Air Tour and Aerial Advertising Flights

- Please avoid direct overflight of Key West by the Sea and Las Brisas Condominiums and Riviera Shores Neighborhood.

Aircraft Engine Run-ups

- Between the hours of 11:00 pm and 7:00 am local time, aircraft engine run-ups must be conducted at the designated location as shown below. Run-up is defined as “advancing the r.p.m. of a prop aircraft’s engine or engines to the appropriate medium setting for the aircraft type as a final engine and systems test before full power takeoff.”
- Between the hours of 7:00 am and 11:00 pm local time, aircraft engine run-ups shall be made only at the ends of the parallel taxiway or near the runway ends behind the holding line markings so long as the same shall not interfere with operation of other aircraft.



Helicopters

- When time and safety allow, please depart to and arrive from the south (toward the ocean) to avoid low overflights of noise-sensitive residential areas (e.g, Riviera Shores) directly north of the airport.



KEY WEST INTERNATIONAL AIRPORT—EYW

VOLUNTARY NOISE ABATEMENT PROCEDURES



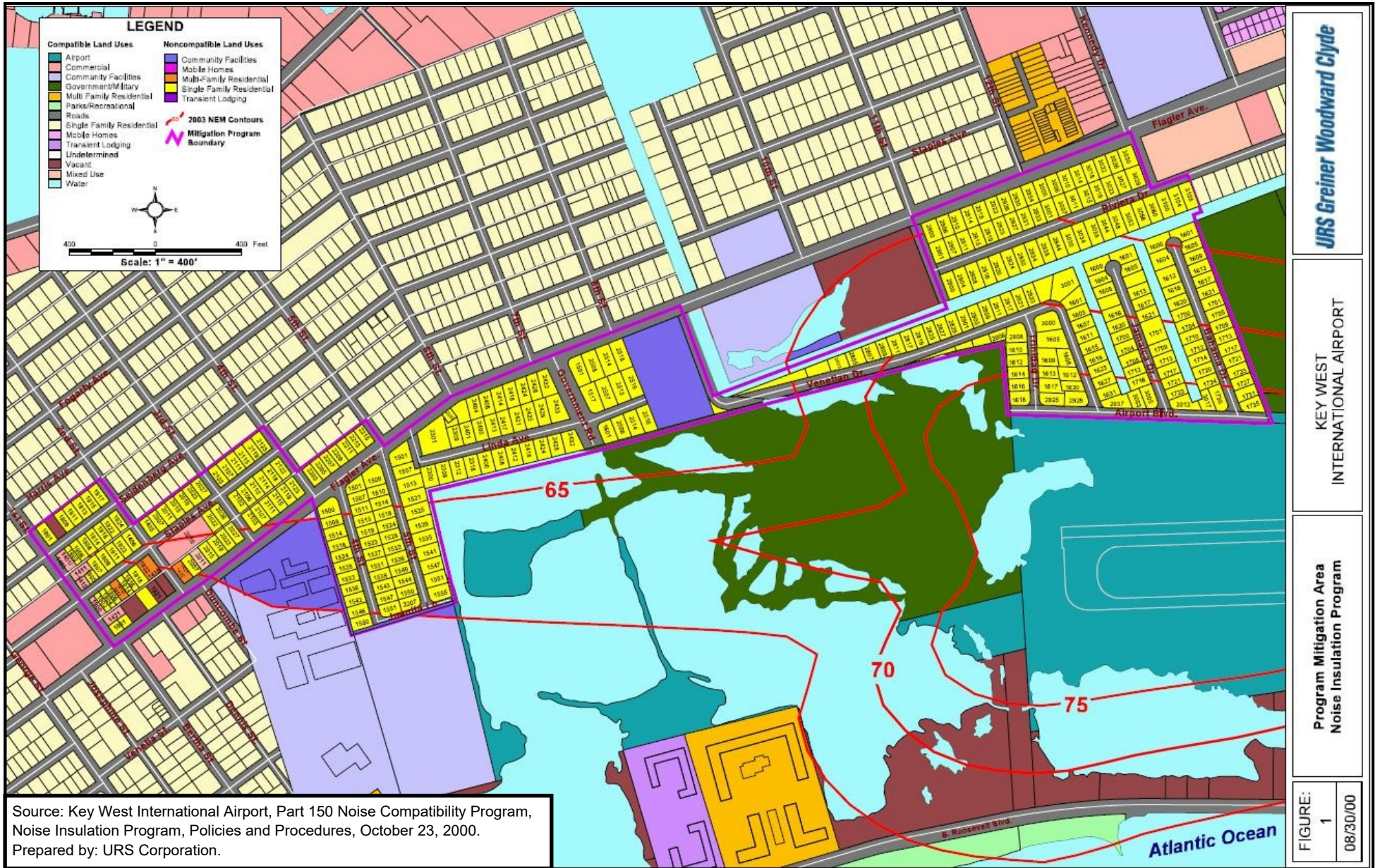
Source: Key West International Airport, Noise Compatibility Program for the Part 150 Study, March 12, 2015.
 Prepared by: URS Corporation and Deborah Murphy Lagos and Associates

**VOLUNTARY NOISE ABATEMENT PROCEDURES
 PILOT HANDOUT PAGE 2**



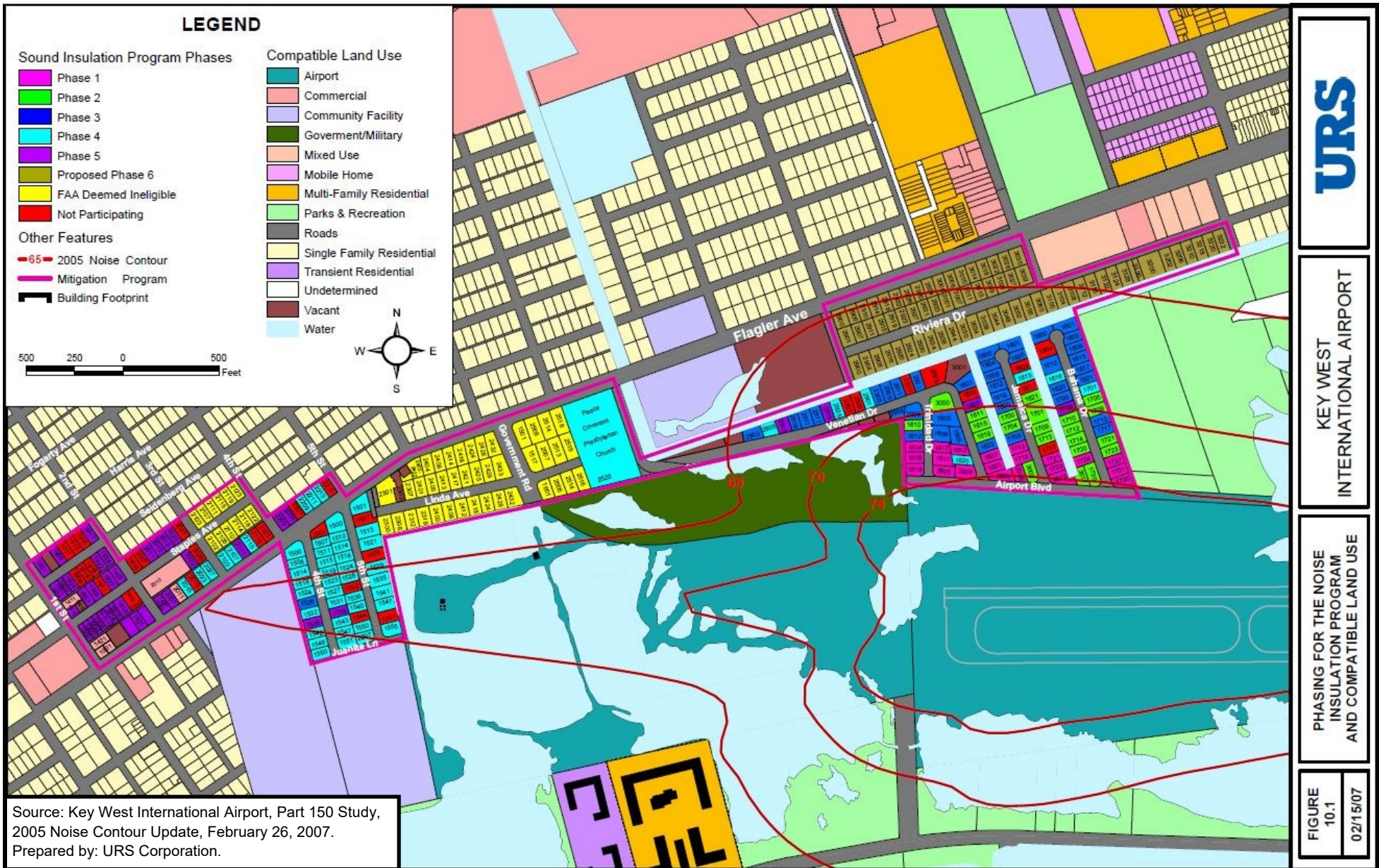
**KEY WEST
 INTERNATIONAL AIRPORT**
 NEM Update

**FIGURE
 A.2**



**PROGRAM MITIGATION AREA
BASED ON THE YEAR 2003 FUTURE CONDITION NEM**





KEY WEST INTERNATIONAL AIRPORT

PHASING FOR THE NOISE INSULATION PROGRAM AND COMPATIBLE LAND USE

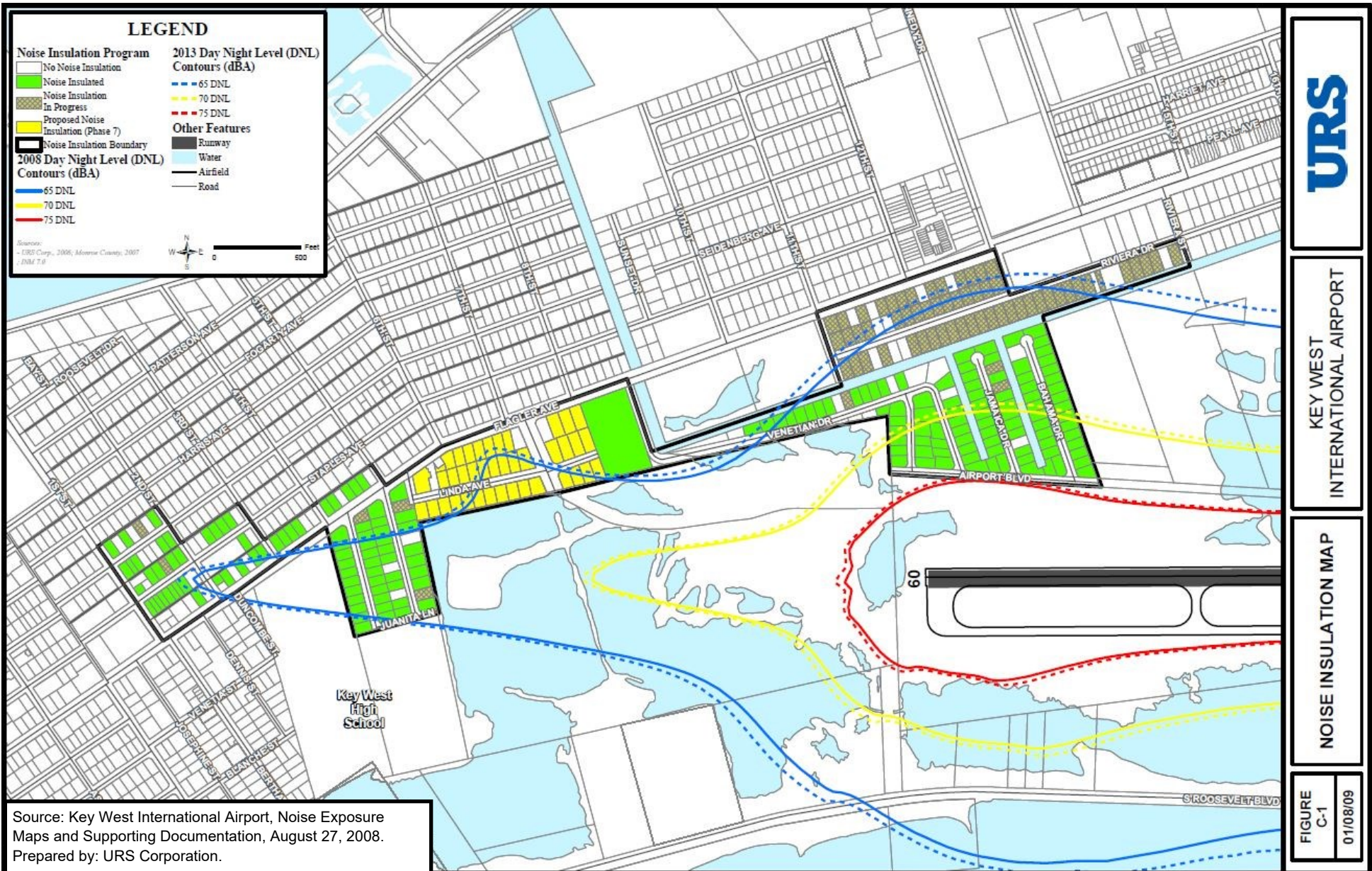
FIGURE 10.1
02/15/07

FIGURE A.4

PHASE 6 BASED ON THE 2005 NOISE CONTOUR UPDATE



KEY WEST INTERNATIONAL AIRPORT
NEM Update



KEY WEST INTERNATIONAL AIRPORT

NOISE INSULATION MAP

FIGURE C-1
01/08/09

PHASE 7 BASED ON THE 2008 NEM UPDATE





Page A-26
FIGURE A.6

295 HOMES INSULATED IN THE “ORIGINAL” NIP



Source: Deborah Murphy Lagos and Associates, THC, 2022

Condominiums at Key West by the Sea (KWBSTS)

BUILDING A

611	610	609	608	607	606	605	604	603	602	601
511	510	509	508	507	506	505	504	503	502	501
411	410	409	408	407	406	405	404	403	402	401
311	310	309	308	307	306	305	304	303	302	301
211	210	209	208	207	206	205	204	203	202	201
111	110	109	108	107	106	105	Laundry Room	103	102	101

BUILDING B

611	610	609	608	607	606	605	604	603	602	601
511	510	509	508	507	506	505	504	503	502	501
411	410	409	408	407	406	405	404	403	402	401
311	310	309	308	307	306	305	304	303	302	301
211	210	209	208	207	206	205	204	203	202	201
111	110	109	108	107	106	105	Laundry Room	103	102	101


BUILDING C

324	323	322	321	320	319	318	317	317S	316	315	314	313
224	223	222	221	220	219	218	217	217S	216	215	214	213
124	123	122	121	120	119	118	117	Laundry Room	116	115	114	113

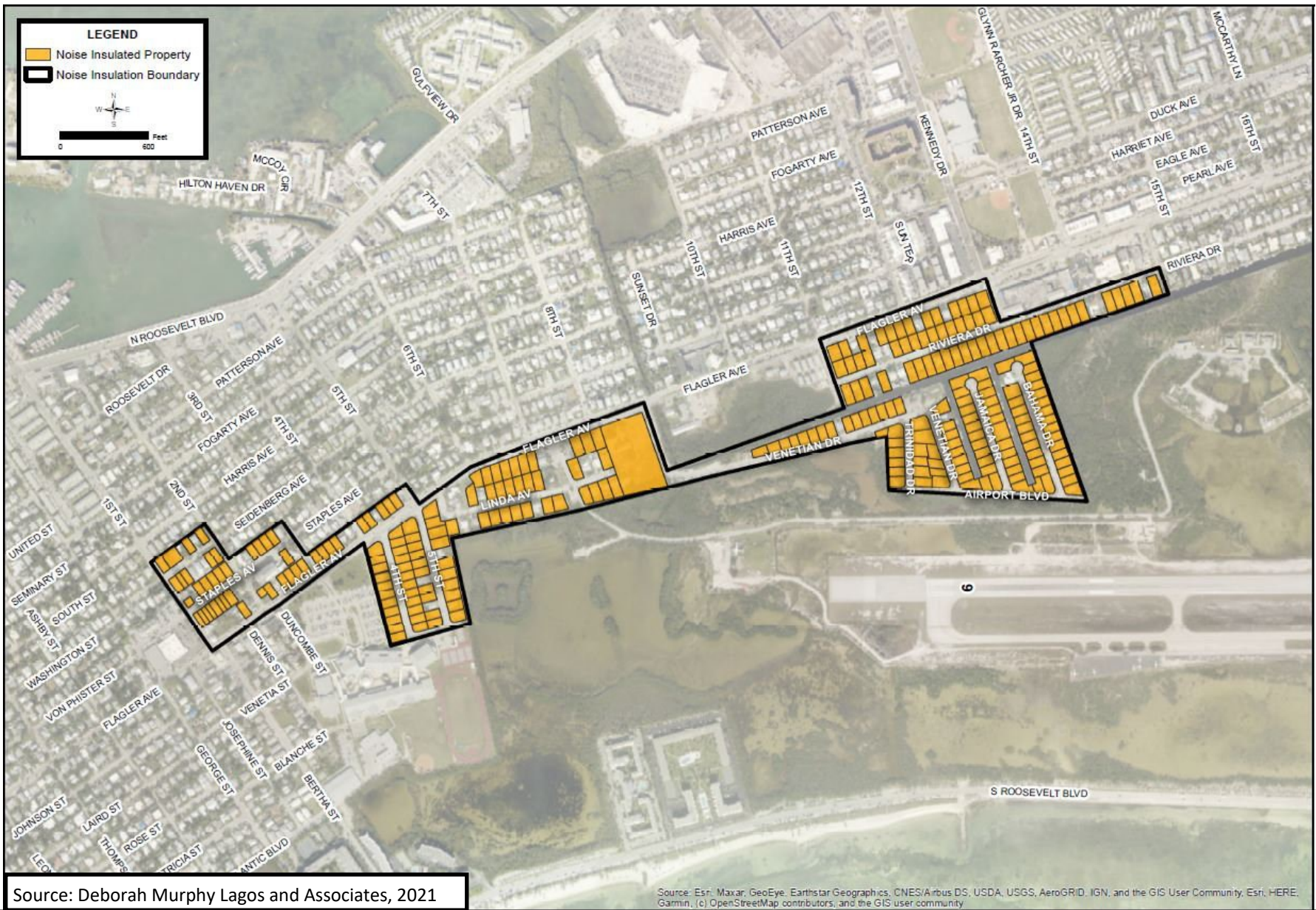
BUILDING C (Continued)

312	311	310	309	308	307	307S	306	305	304	303	302	301
212	211	210	209	208	207	207S	206	205	204	203	202	201
112	111	110	109	108	107	Laundry Room	106	105	104	103	102	101

 Participated in the NIP
185

 Did Not Participate in the NIP
21





Source: Deborah Murphy Lagos and Associates, 2021

296 HOMES INSULATED IN THE NIP

